

## INSTRUCTIONS FOR INSTALLING AND SERVICING CHAMBERS RANGES

### WAREHOUSE:

As soon as ranges are received, they should be examined for defects and should be handled and stored with the base side down, as plainly marked on the crate.

### DELIVERY:

Some of our dealers find it most convenient to uncrate and connect the stove at the warehouse and make every adjustment. No muss is made, no time is consumed, and that required to make connection. This series of howevers intended to make problem men- th.

### INSTALLATION:

It is convenient to install the range about 10 inches long. Place the horses, right side up, a horses well underneath way of the legs. Saw the corner uprights of the above the bottom, then the crate up at each corner with a pinch bar, or chisel, and the entire bottom, will be removed in one piece. Cut and remove the steel strap, which holds the top cover on. Remove the leg bolts, which fasten the range to the bottom of the crate. The trestles are now long enough so that the stove may be tilted backward and the crate bottom removed. Unpack the legs from the Thermowell and screw on the range. The leg bolts are screwed upward from below, with the nuts inside the range bottom frame. If the range is to be equipped with a base, spring clips are included which are bolted to the legs before they are placed on the range. Extra leg bolts, with nuts and washers, are included, these to be used in case the bolts used in crating have their threads damaged. The range is now ready to set on the floor. Remove all packing. It will be noted that the pilot lighter tubes and the top burners are held in place by corrugated board, which is to be removed. Remove wire from the oven burner, the utility cabinet bottom and all handles. Present the user with the book of instructions contained in the range, calling particular attention to the value of its use. Clean range thoroughly inside and out. Check the operation of all handles and the Thermowell and oven dampers. Assemble back splasher and connect to gas supply line.

Oven conditions are ideal when there is no chimney connection and

there is no practical necessity for using a chimney connection as the products of combustion of the oven are perfectly harmless. If a chimney connection is necessary to comply with the law or the demands of the customer, it should be provided with a damper, or better yet, a draft diverter so that the chimney will neither draw heat from the oven, nor produce a down draft which will

combustion. caps, carrying wa- used or tol- dangerous. the nor- combus-

just the pinch crate moved the top cover on. Remove the leg bolts, which fasten the range to the bottom of the crate. The trestles are now long enough so that the stove may be tilted backward and the crate bottom removed. Unpack the legs from the Thermowell and screw on the range. The leg bolts are screwed upward from below, with the nuts inside the range bottom frame. If the range is to be equipped with a base, spring clips are included which are bolted to the legs before they are placed on the range. Extra leg bolts, with nuts and washers, are included, these to be used in case the bolts used in crating have their threads damaged. The range is now ready to set on the floor. Remove all packing. It will be noted that the pilot lighter tubes and the top burners are held in place by corrugated board, which is to be removed. Remove wire from the oven burner, the utility cabinet bottom and all handles. Present the user with the book of instructions contained in the range, calling particular attention to the value of its use. Clean range thoroughly inside and out. Check the operation of all handles and the Thermowell and oven dampers. Assemble back splasher and connect to gas supply line.

burning pilot should have a yellow flame about 1/2" in height, directly adjacent to the front of the oven burner. It is adjusted at the small brass valve, which is located at the inlet fitting of the Thermostat.

Incorrect calibration of Thermostats is not nearly so common as many people seem to think. If there is any question about the correctness of the Thermostat, first look to see that the dial does not rub on the front of the stove as it turns around. If this condition should exist, loosen the clamp which holds the body of the Thermostat inside the range frame, then push the Thermostat slightly forward; then tighten clamp. If the user should say that the oven is not hot enough, or that it does not heat quickly enough, the burner should first be examined to see that it has the right amount of flame before assuming that the Thermostat needs re-adjusting.

However, if it so happens that the Thermostat should require recalibration, this can easily be done

with a reliable oven thermometer. Place the thermometer in the middle of the oven, set the Thermostat at 450 and turn the gas on full. At the end of twenty minutes, note quickly the thermometer reading. At the end of twenty-five minutes do the same, and again at the end of thirty minutes. If the thermometer has held the same reading during these three checks five minutes apart, and that reading varies more than 25 degrees, either way from your 450 setting, then reset your dial head.

To reset the dial head, loosen the set screw that holds the dial, and reset the dial to correspond to the temperature indicated by the thermometer. VERY careful not to move the dial which the dial is adjusted. Commence moving the dial off and putting it straight

1. If your oven does not hold the temperature at the end of 20 minutes, 25 minutes, and 30 minutes BEFORE you reset your dial be sure that the oven DOES give the temperature for three successive readings, five minutes apart.

### THERMOWELL BURNER ADJUSTMENT:

Proceed as with the oven burner, setting the flame cone at about 3/4" in length, with air shutter set to give a clear blue cone, but NOT TOO SHARP. The pilot is arranged for continuous burning and is adjusted with a valve as in the case of the oven pilot.

### TOP BURNER ADJUSTMENT:

First, with the burners in place, and the lighter tubes in place on the burners, see that the pilot head is straight and that it has not been displaced in handling the range. See that the ends of the lighter tubes, which attach to the pilot head, point as straight as possible toward the center of the pilot head, since the pilot head may become dislocated one way or another.

Having noted that the pilot head and tubes are in correct position, light the pilot and adjust to a blue flame about 1/2" high. The air is adjusted by means of a knurled sleeve on the body of the pilot just below the shell, which forms the head. The gas is adjusted by means of a slotted head valve in the fitting which attaches the pilot to the main gas pipe. At this point, the mixer pins, which admits the gas to the top burners, should be inspected to see that they point straight directly into the burner.



The top burners should be adjusted to maintain blue cone flames about  $\frac{3}{8}$ " in length, free from yellow tips, but preferably not too hard or sharp. Both air and gas adjustments are readily accessible when the grates and drip rings are removed. The action of the top burner lighter consists in creating an explosive mixture of gas and air

in the lighter tube when the gas is turned on. The gas, which discharges from the burner into the tube, flows toward the pilot flame, which, if the proper amount of air is mixed with it, flashes back, igniting the burner. In order that the proper mixture may be obtained under a great variety of gas conditions, a sliding sleeve is provided,

which governs the supply of air entering into the tube.

Satisfactory action of the lighter depends also upon a correct adjustment of the burner itself. If the gas flow is excessive, the lighter suffers from a deficiency of air, and if the top burner has an over-supply of air, the mixture in the flash tube may be too thin.

## REPLACEMENT OF ENAMELED PARTS

### SMALL FRONT:

Remove all valve handles, thumb plates and Thermostat dial. Before removing the dial, turn it to 450 degrees and be sure that the shaft is not turned when the dial is removed. This front is held in place with six concealed bolts the heads of which are securely in welded clips on the back of the front. Four of these clips are at the corners of the front and two on each side of the thermostat. Remove the nuts and washers and slide the front inside the stove frame.

When the front is in place properly fastened, replace the dial being sure that it is put on against 450 degrees without turning shaft. When the handles are placed, see that they are in line with each other. Some fitting trying may be necessary. The dial should be about  $\frac{1}{32}$ " play between the handle and the safety catch. The alignment of the thumb plates can be corrected, if necessary, by using pliers on the arm to which they are attached.

### OVEN FRONT:

Remove the griddle lifting handle, the broiler adjusting handle and the oven door keeper. There is a hole on the under-side of the door keeper by which it may be unscrewed with a stout steel pin. This front is held on with four bolts near the corners. The upper right hand bolt is accessible by removing the bowl surrounding the left front top burner. The upper left hand bolt is accessible through a small opening in the broiler box. To reach the lower bolts, it is best to remove not only the oven baffle plate, but also the oven burner.

After the front is replaced, be sure that the oven burner is properly seated on the mixer pin, or orifice cap, in proper place in the head of the burner.

### END PANELS:

These are held in place by only two bolts, one in the upper and one in the lower rear corner. To remove the end panels, it is necessary to remove the fronts.

It will be noticed that all enamel on the wide edges drawn all the way around the front. This

construction is to prevent chipping of the panels, particularly in the corners, and is important. The particular structure and necessity of locking the front when the end panels are removed is a proceeding for in the older type, however, is with

with the and if the wool has been disturbed

It is to be on the boiler latch, must These sleeve panel and bringing a brush enamel. The lining wool is held, by the piece of sheet metal afore mentioned, is now put in place, the sheet metal slipped out and the lining screwed down.

### THERMOWELL:

The Thermowell in its entirety may be removed and replaced by taking out one screw in front which is accessible by removing the right hand burner bowl and two screws in the rear, which pass through the apron of the cast iron top. A piece of sheet metal should be slipped under the Thermowell when removing or replacing in order to keep from bending the outside shell of the Thermowell.

### CHANGING THE RANGE FOR BOTTLED GAS:

It is not desirable to attempt to change a range from other types of gas to bottled gas, but if it is necessary to do so, the procedure is as follows:

Change all orifice caps to the fixed type. If lighters are to be dispensed with, either order bottled gas top burners from the factory

or plug up the holes where the lighter tubes are inserted and also off the chimney of the Thermo-

equipped with Replace the top or drip rings) with a new type. See the the

When use shell compound. Inspect that mixer pins and line and in position the range throughout.

### CLEANING:

The thermostat is simply a valve of the mushroom type, operated by the expansion and contraction of metal bellows under the action of heat.

The operation of the valve consists in the raising of the disc from its seat and allowing it to lower again. The disc and its seat are accurately ground so that when they come together, the contact will be practically gas tight. It is not essential that this type of valve be absolutely tight because when it is in use the by-pass is in operation and the by-pass will burn away any slight leakage that may occur; however, if the valve does not close practically tight, its operation will not be satisfactory because more gas will flow through than is naturally expected and the by-pass flame will become excessive.

It is possible that particles of dirt, carried by the gas, may become lodged on the valve disc or its seat, preventing the gas from shutting off. Therefore, it sometimes happens that the Thermostat needs to be cleaned. To do this, unscrew the head from the inner end of the Thermostat body. Inside this head is a spring which holds the valve disc against the action of the expansion member and serves to move the disc toward the closed position. Remove the spring and the valve disc under it. Carefully wipe disc clean, also the seat against which it works. Replace the parts and see that the head is screwed home gas tight.